

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michael Swope on October 22, 2008.

The specification has been amended as follows:

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently amended) A computer-implemented method performed by a computing device for querying a data structure in a distributed computing environment, comprising:

preparing a query specifying the constraints to be applied on at least two different data structures wherein each data structure comprises substantially the same information wherein the information is stored in a different data format type and where each data structure is queried according to a different format type wherein the data structure is stored as one of XML, database tables, and a programming language data structure;

sending the query to at least two different objects wherein each object maintains one of the at least two different data structures in-memory and determines whether the in-memory data structure maintained by each object satisfies the query; and

receiving the results from the query from the at least two different objects wherein the query results are returned in substantially identical formats.

2. (Original) The method as recited in claim 1 wherein the query is specified as a text string.

3. (Canceled)

4. (Previously presented) The method as recited in claim 1 further comprising receiving a data value from at least one digital device indicative of the storage of the value in said digital device wherein one of the at least two different objects resides on the digital device.

5. (Previously presented) The method as recited in claim 4 wherein the digital device comprises one of a personal computer, personal digital assistant, video tape recorder, a display device, and an MP3 player.

6. (Original) The method as recited in claim 1 wherein the query is sent in the form of a message over a data network.

7. (Canceled)

8. (Currently amended) A system for determining the status of a device, comprising: a processor;

a query generation mechanism for generating a type query specifying a data type and a value wherein the query can be to be applied on at least two different data structures wherein each data structure maintains substantially the same information but wherein the information is stored in a different data format type, wherein the data structure is stored as one of XML, database tables, and a programming language data structure;

a query transmission mechanism for transmitting the type query and the value over a communication network to at least two digital devices whereby each digital device compares the data type to a data type of a data structure that it maintains in-memory and compares the value to a value stored in the data structure wherein said data structure is one of the different format types; and

a results acceptance mechanism wherein the results returned from each of the at least two different data structures are substantially the same.

9. (Canceled)
10. (Original) The system as recited in claim 8 wherein the query is specified as a text string.
11. (Original) The system as recited in claim 8 further comprising a receiving mechanism for receiving a data value from at least one digital device indicative of the storage of the value in said digital device.
12. (Previously presented) The system as recited in claim 8 wherein the digital device comprises one of a personal computer, personal digital assistant, video tape recorder, a display device, and an MP3 player.
13. (Canceled)
14. (Canceled)
15. (Canceled)
16. (Canceled)
17. (Canceled)
18. (Canceled)
19. (Canceled)
20. (Canceled)
21. (New) A computer-readable storage medium having stored thereon computer readable instructions for querying a data structure in a distributed computing environment when executed on a computing device, comprising:

computer instructions for preparing a query specifying the constraints to be applied on at least two different data structures wherein each data structure comprises substantially the same information wherein the information is stored in a different data format type and where each data structure is queried according to a different format type wherein the data structure is stored as one of XML, database tables, and a programming language data structure;

computer instructions for sending the query to at least two different objects wherein each object maintains one of the at least two different data structures in-memory and determines whether the in-memory data structure maintained by each object satisfies the query; and

computer instructions for receiving the results from the query from the at least two different objects wherein the query results are returned in substantially identical formats.

22. (New) The computer-readable storage medium as recited in claim 21 wherein the query is specified as a text string.

23. (New) The computer-readable storage medium as recited in claim 21 further comprising receiving a data value from at least one digital device indicative of the storage of the value in said digital device wherein one of the at least two different objects resides on the digital device.

24. (New) The computer-readable storage medium as recited in claim 23 wherein the digital device comprises one of a personal computer, personal digital assistant, video tape recorder, a display device, and an MP3 player.

25. (New) The computer-readable storage medium as recited in claim 21 wherein the query is sent in the form of a message over a data network.

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance:

Claims 1-2, 4-6, 8, 10-12, 21-25 are allowable over the prior art of record because the prior art of record fails to teach applying a query on at least two different data structures of different format types that contain substantially the same information, wherein the data structure is stored as one of XML, database tables, and a programming language data structure and receiving results from the query from the at least two different objects wherein the query results are returned in substantially identical formats, together with all elements recited in independent claims 1, 8 and 21.

Thus, the prior art of record neither renders obvious nor anticipated the combination of claim elements in light of the specification.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DEBBIE M. LE whose telephone number is (571)272-4111. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Vo can be reached on (571) 272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DEBBIE M LE/
Primary Examiner, Art Unit 2168
November 18, 2008